

Solve the following:

1. $x + 18 = -20$

2. $x - 7 = -3$

3. $x - 3 - 8 = -12 + 2$

4. $9x - 8x - 3 = -14$

5. $-77 - 11 = -11x$

6. $-24 = 2x - 4x$

7. $-7(2x) = -14$

8. $6x - 13x = -49$

9. $-7x - 3 = 25$

10. $6x + 16 = 9x - 20$

11. $5x - 6 = -26$

12. Express the following numbers as product of prime factors:

a. 48

b. 72

c. 170

13. Change the following mixed numbers to improper fractions.

a. $3\frac{4}{7}$

b. $7\frac{1}{9}$

c. $-11\frac{1}{2}$

14. Write the following improper fractions as mixed numbers or a whole numbers:

a. $\frac{17}{8}$

b. $\frac{23}{7}$

c. $-\frac{11}{3}$

15. Write each ratio as a fraction in simplest form:

a. 12 pints to 42 pints

b. 6:10

16. Find the value of x in each proportion.

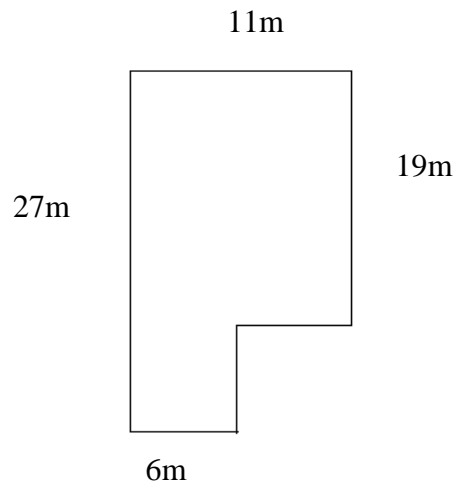
a. $\frac{x}{12} = \frac{15}{36}$

b. $\frac{9}{15} = \frac{3}{x}$

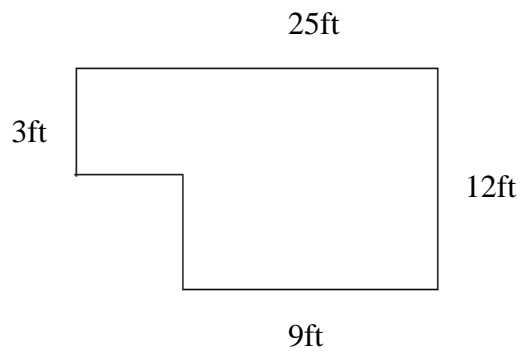
c. $\frac{24}{39} = \frac{x}{13}$

17. What is the volume of a rectangular solid that is 4 feet wide, 7 feet long & 3 feet high?

18. Find the area of a rectangle with a length of 14 ft and a width of 3 ft.
19. Find the area of the figure below:



20. Find the perimeter of the figure below:



Answers to Math 302 Practice Test 2

1. $x = -38$

2. $x = 4$

3. $x = 1$

4. $x = -11$

5. $x = 8$

6. $x = 12$

7. $x = 1$

8. $x = 7$

9. $x = -4$

10. $x = 12$

11. $x = -4$

12. a. $2^4 \cdot 3$

b. $2^3 \cdot 3^2$

c. $17 \cdot 2 \cdot 5$

13. a. $\frac{25}{7}$

b. $\frac{64}{9}$

c. $-\frac{23}{2}$

14. a. $2\frac{1}{8}$

b. $3\frac{2}{7}$

c. $-3\frac{2}{3}$

15. a. $\frac{2}{7}$

b. $\frac{3}{5}$

16. a. $x = 5$

b. $x = 5$

c. $x = 8$

17. 84 ft^3

18. 42 ft^2

19. 257 m^2

20. 74 ft